

WEIGHTS AND MEASURES

Measuring Instruments
(Automatic Discontinuous Totalisers)
Regulations 2006 (S.I. 2006 No. 1200)

The Marian

The Weighing Equipment (Killing and Discontinuous Totalising Automatic Weighing Machines) Regulations 9986 (S.I. No. 1986 1320)

Version 1



Summary

This guidance covers all discontinuous totalisers in use for trade. Part 1 of this document covers discontinuous totalisers covered by the Measuring Instruments Directive (MID) i.e. those put on the market on or after 1st October 2006. Part 2 covers discontinuous totalisers under national control i.e. before the MID came into force and during the transitional period.

Nothing in this guidance should be construed as overriding, amending or deferring safety regulations and requirements issued by the Health and Safety Executive (in Northern Ireland the Health and Safety Executive for Northern Ireland), in connection with the conduct of persons and the condition and use of machinery and equipment on any premises.

The guidance is addressed to organisations that are required to compare the compared to the compared to compare the compared to compare the compared to compare the compared to the compared t th weights and measures law. Following the guidance is not in itself obligatory by you do follow it, this should help your organisation to meet its legal obligations

Ultimately, only the courts can provide a definitive interpretation of the law. However, for further guidance on how to comply with the law, you can contact your local authority trading standards department, who provide this service free of charge: /index.cfm - simply type in your http://www.tradingstandards.gov.uk/advice This guidance complies with the Government Code of Practice on Guidance and will be reviewed in October 2016

National Measureme Stanton Avenu

Teddington Middlesex

Phone 020 8943 7277

Email registry@nmo.gov.uk

Revision History

Version number and date of change	Sections affected
Version 1	First issued March 2012
	Updates existing guidance on 2006 MID
	Regulations (now Part 1) to comply with
	the BRE "Code of Practice on Guidance on
	Regulation" and has been expanded in Part 2 t
	cover the guidance on the Weighing Equipmen
	(Filling and Discontinuous Totalising Automatic
	Weighing Machines) Regulations 1986
	1986/1320)
	.7
	10,
	1
	0,
	1001
	1/1;
	N'
	<u> </u>
	40
	4.
;O',	
6 00	
.6 ^x	
M	
1/1/2	
This publication	

Part 1: The Measuring Instruments (Automatic Discontinuous Totalisers) Regulations 2006 (S.I. 2006 No. 1255) [Pages 4 to 24]

Contents

- 1.1 Foreword
- 1.2 Background
- 1.3 Part I - Preliminary
 - · Citation and commencement
 - Interpretation
 - Application
- Part II Placing on the market and putting into use of automatic disco 1.4 January 2 totalisers
 - Requirements for placing on the market and outing into use
 - Compliance with the essential requirements
 - Conformity assessment procedures
 - Designation of United Kingdom notified bodies
 - Provisions supplemental to regulation 7
 - Fees
 - Marking and identification requirements
- Part III Use for trade of automatic discontinuous totalisers
 Requirements for use for trade
 Manner of use
 Manner of erection and installation
 Part IV Enforcement
 Enforcement authority
 Compliance notice procedure
 Immediate enforcement action 1.5
- 1.6

 - Immediate enforcement action
 - Disqualification
 - Re-qualification

 - Testing of automatic disontinuous totalisers Unauthorised application of authorised marks
 - Powers of entry any inspection
 - Penalties for offences
- 1.7 Part V - Miscella ous and supplemental
 - Adaptation for Northern Ireland
 - Electron agnetic compatibility

Annex

king and Inscriptions

Part 1: The Measuring Instruments (Automatic Discontinuous Totalisers) Regulations 2006 (S.I. 2006 No. 1255)

1.1 Foreword

- 1.1.1 The Measuring instruments (Automatic Discontinuous Totalisers) Regulations 2006, S.I. 2006 No. 1255 ("the Regulations") implement Council Directive 2004/22/EC ("the Directive") in relation to the class of automatic discontinuous totaliser within the category automatic weighing instruments covered by the Directive. The Regulations provide for the harmonisation of laws on automatic discontinuous totalisers within Member States, thereby creating a single market for them.
- 1.1.2 Eleven new measuring instrument regulations have been made to implement the Directive. Ten of these have been written so that the types of instrument are their field of application mirror the scope of the regulations made previously under the Weights and Measures Act 1985 and the Weights and Measures (Northern Ireland) order 1981. A separate regulation relates to instruments covered by the Measuring Instruments Directive, but not regulated within the UK. These are referred to as "non-prescribed instruments" and the regulation governing them provides a means by which UK manufacturers can be permitted to undertake conformity assessment procedures on these instruments not regulated in this country. This will allow them to export to other Member States where the particular instruments are regulated.
- 1.1.3 There is also a distinction between measures relating to measuring instruments when they are first placed on the market (which are governed by the Directive) and the in-service provisions which are derived from existing national provisions. The Regulations therefore apply both at the point at which the instrument is placed on the market and include in-service testing and subsequent repair and re-qualification.
- 1.1.4 This guidance covers the above Regulations.
- 1.1.5 The Regulations came introduce on 30 October 2006 after which date new designs of automatic discontinuous totalisers placed on the market must comply with their provisions. This guidance is intended to assist manufacturers, notified bodies, users, and enforcement authorities in meeting the requirements of the Regulations.
- 1.1.6 A similar system of approval and verification of instruments has been operating successfully for several years for non-automatic weighing instruments (NAWIs) and manufacturers have benefited enormously from its introduction, through savings in costs on both approvals and verification, and through the widening of an easily accessible market. This should also be the case with the new Regulations.
- 1:1. There is significant input from WELMEC, the European Co-operation in Legal Metrology, to the understanding and interpretation of the Directive. WELMEC has already convened a number of working groups for this purpose. WELMEC is considering questions of application and implementation, particularly in areas of technical uncertainty and acts as a forum for seeking advice from the European Commission on common issues. Information regarding WELMEC and its decisions can be found at www.welmec.org.

1.2 Background

1.2.1 The Directive is a "New Approach" Directive and was adopted by the EC Council of Ministers in April 2004. It consists of 27 Articles, 14 annexes and 10 instrument specific

annexes. Member States were required to implement the provisions of the Directive into their national law by 30 April 2006 and to apply the new legislation with effect from 30 October 2006.

- 1.2.2 The Directive extends to all measuring instruments listed in Article 1 and provides that Member states may prescribe use of them for measuring for reasons of public interest, public health, public safety, public order, protection of the environment, protection of consumers, levying of taxes and duties and fair trading where they consider it justified. Following a public consultation it was decided that the UK implementation should apply to areas covered by existing weights and measures Regulations only.
- 1.2.3 The Directive is the second "New Approach" Directive adopted in respect of measuring instruments. The first was Directive 90/384/EEC (the NAWI Directive) and relates to not automatic weighing instruments and came fully into force in January 2003.
- 1.2.4 The Commission has issued guidance on "New Approach" directives in "Guilance on the implementation of directives based on the New and Global Approach" which can be found at: http://ec.europa.eu/enterprise/policies/single-market-goods/files/blueguide/guidepublic_en.pdf
- 1.2.5 The principles of the Regulations are set out in the Commission Guidance as follows:
 - Harmonisation is limited to essential requirements.
 - Only products fulfilling the essential requirements moves placed on the market and put into service.
 - Harmonised standards, the reference numbers of which have been published in the
 Official Journal and which have been transposed into national standards, are presumed
 to conform to the corresponding essential equirements.
 - Application of harmonised standards of their technical specifications remain voluntary, and manufacturers are free to choose any technical solution that provides compliance with the essential requirements.
 - Manufacturers may choose between different conformity assessment procedures provided for in the applicable directive.
- 1.2.6 The "New Approach" to Technical Harmonisation is an important part of the process for achieving the single market hais intended to remove the technical barriers to trade caused by differing national laws. Differing agreed under the New Approach allow for the free movement (placing on the market and putting into service) in the Community of goods that conform to the essential and other requirements of those Directives. Such products carry the "CE marking" and no Member State is allowed to refuse complying products access to its market. In this case all compliant automatic measuring instruments covered by Directive 2004/22/EC have free movement the eighout the Community.
- 1.2.7 In the Regulations it is important to distinguish between when instruments are first placed or the market or put into service and requirements that relate to in-service provisions. The first are requirements of the Directive. The second are national provisions and will therefore apply only to Great Britain.
- 1.2.8 The Directive provides an 'optionality clause' This means that Member States may prescribe the category and range of applications for measuring instruments they wish to control. This will lead to a variation between Member States which will mean that for the same use, instruments in some Member States will be regulated, whereas in other Member States they will not.

1.3 PART 1 - Preliminary

1.3.1 The Regulations have been made using powers under the European Communities Act 1972 and, in relation to Part III, the Weights and Measures Act 1985. The Regulations also extend to Northern Ireland except for Part III. Separate in-service regulations for Northern Ireland are covered by the Measuring Instruments (Automatic Discontinuous Totalisers) (Use for Trade) Regulations (Northern Ireland) 2007 (SR 2007/389).

Citation and commencement

Regulation 1

1.3.2 This gives the title of the Regulations and states the coming into force dates of 20 April 2006 for the regulations listed in 1(2) (essentially relating to the designation of notifi bodies)pose of these regulations and 30 October 2006 for the remaining regulation

Interpretation

Regulation 2

1.3.3 The following definitions are important to an understanding of the Regulations:

Manufacturer – This term means a person responsible for the conformity of an automatic discontinuous totaliser with these Regulations with a view to either placing it on the market under his own name or putting it into use for his own purposes or both;

Authorised representative - The manufacturer representative appoint any natural or legal person to act on his behalf as an authorised representative. For the purposes of the Directive the authorised representative must be established inside the Community. The authorised representative must be established in a Member State. The authorised representative must be authorised by the manufacturer, in writing, to act on his battalf, and he may be addressed by the UK authorities instead of the manufacturer with regard the latter's obligations under the Regulations. The manufacturer remains generally reponsible for actions carried out by an authorised representative on his behalf.

Approved verifier - This term used in Regulation 23, and means a person approved pursuant to section 11 of the Weights and Measures Act 1985 (in Northern Ireland Article 9(3B) of the Weights and Measures (NI) Order 1981).

the term used in Regulation 22, and means an inspector of weights and measures appointed under section 72(1) of the Weights and Measures Act 1985 (in Northern Ireland Article 40 of the Weights and Measures (NI) Order 1981).

Impacted person responsible for placing on the market - An importer (a person responsible for Nacing on the market), for the purposes of the Directive, is any natural or legal person established in the Community who places a product from a third country on the Community market. The importer must ensure that he is able to provide the market surveillance authority with the necessary information regarding the product, where the manufacturer is not established in the Community, and has no authorised representative in the Community. In line with Schedule 1 of the Interpretation Act 1978 a person includes a body of persons corporate or unincorporated in that it applies to both a natural or a legal person.

Notified Body - This means

- (a) the Secretary of State i.e. National Measurement Office (NMO) Services; or
- (b) a United Kingdom notified body namely a person designated under Regulation 7; and

(c) for the purposes of regulations 4(1)(c), 19(1)(b), 21(1)(c) and 24(6), a person designated by another Member State who has been notified to the Commission and the other Member States pursuant to Article 11.1 of the Directive.

Installer - The installer and assembler of a product, which is already placed on the market, should take necessary measures to ensure that it still complies with the essential requirements at the moment of first use within the Community. This applies to products where the directive in question covers putting into service, and where such manipulations may have an impact on the compliance of the product.

Application

Regulation 3(1)

1.3.4. The Regulations apply to automatic discontinuous totalisers for use for trade as defined in section 7 of the Weights and Measures Act 1985 that have been first placed on the market or put into use on or after the 30 October 2006. The Regulations have similar in service provisions to those included in the existing Regulations insofar as they are consistent with the Directive.

Regulation 3(2)

- 1.3.5 The Regulations do not apply to automatic discontinuous totalisers that have been first passed as fit for use for trade before 30 October 2006 under the following regulations and have a certificate of approval that is still in force and was first stamped and passed as fit for use for trade and stamped under the:
 - Weights and Measures Regulations 1966
 - Weighing Equipment (Filling and Disconinuous Totalising Automatic Weighing Machines)
 Regulations 1986
 - Weighing Equipment (Filling and iscontinuous Totalising Automatic Weighing Machines) (Amendment) Regulations 1996.

A certificate of approval referrection in Regulation 3(2) will remain valid until the date on which it expires but no later than 29 October 2016 and may be modified up to the date of expiry. Thus a discontinuous totaliser may continue to be used indefinitely provided it complies with the expired certificate.

- 1.3.6 The following should be noted with regard to the transitional provisions. Instruments passed as fit for use for trade and placed on the market before the 30 October 2006 may have been done under either:
- a) Weights and Measures Regulations 1963, or
- b) Weigling Equipment (Filling and Discontinuous Totalising Automatic Weighing Machines) Regulations 1986, or
- c) Weighing Equipment (Filling and Discontinuous Totalising Automatic Weighing Machines) (Amendment) Regulations 1996.

These instruments can continue to be used provided they meet the requirements of the regulations in a) b) c) above, that were in force at the time that the instrument was first passed as fit for use for trade.

1.3.7 The type (pattern) approval certificate may be modified up to the date of expiry which means these Regulations do not apply for as long as an existing certificate or renewal of an existing certificate remains in force.

Regulation 3(3)

1.3.8 Instruments not in conformity with the Regulations may be displayed or presented at a trade fair, exhibition or demonstration if they are clearly marked to indicate that they are not compliant with the essential requirements of the Regulations and cannot be acquired or used until they have been made to comply by the manufacturer.

PART II – Placing on the market and putting into use of automatic discontinuous totalisers

Requirements for placing on the market and putting into use

Regulation 4(1)

- 1.4.1 This regulation makes it an offence to first placed on the market or put into instrument to which the Regulations apply unless it
- (a) Meets the essential requirements,
- (b) Has demonstrated conformity with these essential requirements and (c) Carries the CE marking, M marking and identification number of the notified body which carried out the conformity assessment.
- 1.4.2 In Regulation 4(b) "its" refers to "the instrument's".
- 1.4.3 The terms placing on the market and putting into use are defined in the regulations and originate from the Directive. The requirements of Residation 4(1) apply only to when instruments are first placed on the market or put into use. Any subsequent reverification is addressed by Part IV of the Regulations. It should be remembered that it is intended these Regulations apply only when discontinuous totalisers are being used for trade as defined in Section 7 of the Weights and Massures Act 1995. This applies to the section 2 of the Weights and Measures Act 1985. This applies to histruments when they are first placed on the market or re-qualified.

Compliance with the essential requirements

Regulation (5)(1)

- 1.4.4 Manufacturers as use more than one method for compliance with the essential These methods are identified as:-
 - (a) using a vechnical solution that complies with the essential requirements;
 - applying solutions set out in the relevant national standard; or
 - correctly applying solutions set out in the relevant normative document,
- and electing and following one of the conformity assessment procedures referred to in regulation 6

Regulation 5(2)

1.4.5 This includes the presumption that instruments which conform fully or in part to relevant national standards or normative documents will be presumed to conform fully or in part with the essential requirements. Relevant national standards and normative documents for this purpose will be published by the Secretary of State, or the competent authority in another Member State. Normative documents for automatic discontinuous totalisers identified by the Commission are published on the NMO website and can be found at: http://www.bis.gov.uk/nmo.

The appropriate OIML Recommendation for discontinuous totalizing automatic weighing instruments is Recommendation R107-1 Edition 1997 (E) which can be found on the OIML website at http://www.oiml.org.

Regulation 5(3)

1.4.6 Where conformity is only in part to relevant national standards or normative documents then either the alternative, where available, should be used to give full conformity or other technical solutions provided. Other technical solutions could include the use of European standards which are not harmonised standards and international standards such as OIML Recommendations which are not normative documents.

Regulation 5(4)

1.4.7 Provides for devices which do not meet the essential requirements and which are not in use for trade. These can be connected to an automatic discontinuous totalises without affecting the conformity of the instrument to the essential requirements. This could for example be printers or data storage devices. These devices are likely to carry their own "CF marking" under directives other than 2004/22/EC.

Conformity assessment procedures

Regulation 6(1)

1.4.8 The different conformity assessment procedures available to manufacturers are set out as modules in the annexes of the Directive. The option available to manufacturers for automatic discontinuous totalisers are as follows:

	A1	D1	E1	F1 ·	SF	B+D	B+E	G	H1
AWIs -		•		. *	7/	•	•	•	•
Mechanical				~ >					
AWIs -				2	•	•	•	•	•
Electro-			_\	0					
mechanical			7	•					
AWIs -			2		•	•		•	•
Electronics or		(D ,						
Software									

The options above represent:

 Declaration of conformity by the manufacturer based on quality assurance of the production process (including test and final inspection) but without the need for type examination (Module D1)

Party verification but without the need for type examination (Module F1)

Type examination followed by declaration of conformity by the manufacturer based on formal quality assurance of the production process (including test and final inspection) as two separate processes (Modules B + D)

- Type examination followed by declaration of conformity by the manufacturer based on formal quality assurance of the product testing and final inspection only (Modules B + E)
- Type examination followed by 3rd Party verification (Modules B + F)
- 3rd Party verification for one off 'bespoke' instruments which would otherwise need type examination (Module G)
- Design examination together with declaration of conformity by the manufacturer based on full formal quality assurance of the design and production process self verification by the manufacturer based on full formal quality assurance of the design and production process (including test and final inspection) as part of an integrated process (Module H1)

1.4.9 For further information on conformity assessment procedures and other aspects regarding the interpretation of the Directive reference should be made to "Guide to the implementation of directives based on the New Approach and the Global Approach". This document can be found at the following website:

http://ec.europa.eu/enterprise/policies/single-market-goods/files/blue-guide/guidepublic_en.pdf

- 1.4.10 For Modules F/F1 the recommended tests under 6.1 and 7.2 of these Regulations to be carried out for initial and subsequent product verification should identified together with the standards necessary to ensure traceability of measurement.
- 1.4.11 The EU Commission in relation to the Directive has published references or mative documents in the Official Journal (2011/C 33/01 and 2006/C 269/01) which in part gives presumption of conformity to the essential requirements. This includes details in automatic discontinuous totalisers (MI-006, Chapter IV) in relation to OIML Recommendation R107-1 Edition 1997 (E). This information is available on the NMO website or by reference to the EU website under the following two links:

http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ/C:2011:033:0001:0012:EN:PDF

http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=03:C:2006:269:0001:0028:EN:PDF

- 1.4.12 The normative references address all the relevant provisions of the Directive i.e. both the general and the instrument specific requirements in abular form, in relation to the corresponding paragraphs of the respective OIML Recommendation and makes comment, in general terms only, of any differences.
- 1.4.13 WELMEC documents, published with eWELMEC website, set out as guidance full versions of these simplified tables with background information and comment for interested parties. Automatic discontinuous to a serious are covered by the document WELMEC 8.16-3.
- 1.4.14 It will be for the manufacturer and/or notified body to decide how to interpret the guidance.

Regulation 6(2)

- 1.4.15 Schedule 3 of the Regulations outlines the nature of the technical documentation that a manufacturer or the authorised representative must maintain. This information must be provided to a notified body to enable them to carry out the relevant assessment. This documentation must be provided in the language of the notified body or any other acceptable language in compliance with paragraph 10(1)(a) of Part II of Schedule 2.
- 1.416 The Regulations do not provide for manufacturers that 'self verify' to notify the Chief Inspector of Weights and Measures of details such as the location, certificate number and date of installation of a catchweigher. However, should the manufacturer wish to do so in the interests of openness, there is nothing to prevent this from happening.

Designation of United Kingdom notified bodies

Regulation 7(1)

1.4.17 Under Article 11 of the Directive notified bodies are required for the tasks relating to the conformity assessment of modules A to H1. (See paragraph 1.4.8 of this guidance for those

relevant to automatic discontinuous totalisers). The criteria for designation of these bodies in accordance with Article 12 are included in Schedule 2 Part 1 of the Regulations.

Regulation 7(2)

1.4.18 If an organisation meets the requirements of Schedule 2 Part I the Regulations permit the Secretary of State to designate a person, whether that is a person resident or incorporated or carrying on a business in the United Kingdom or any other type of person e.g. a local weights and measures authority, to be a UK notified body. The definition of a notified body includes a person although it would appear unlikely that an individual person would be appointed. Where the designation is in respect of a particular description/type of an automatic discontinuous totaliser, the Secretary of State must be satisfied that the applicant meets the criteria as respects that instrument. As with the definition of an importer and, in line with Schedule 1 of the Interpretation Act 1978, a person includes both a natural or a legal person. The application form for bodies applying to be designated as a United Kingdom notified body under Regulation 7 can be found on the NMO website at: www.bis.gov.uk/nmo.

Regulation 7(3)

1.4.19 If a person applying to be a notified body operates an approved quality system under a relevant harmonised standard e.g. EN 17025/17020 and EN45011/45012 he shall be presumed to meet the criteria of the Directive only to the extent that the standard corresponds with the criteria of the Directive. The application form for persons applying to be designated as a notified body under Article 11 and bodies wishing to extend their current status to include conformity assessment tasks in the Directive can be found on the NMO website at: www.bis.gov.uk/nmo/regulation.

Regulation 7(4)

1.4.20 Designations under the Regulations must be in writing which may be either in electronic or hard copy format, and may include conditions such as the scope of designation.

Regulations 7(5) and 8

1.4.21 In addition to the criteria in Schedule 2 Part I of the Regulations the Secretary of State may consider any matter oppearing to him to be relevant prior to designating a person to be a UK notified body under Regulation 7. The functions of a notified body are set out in Part 2 of Schedule 2 to the Regulations.

Provisions upplemental to Regulation 7

1.4.22 To see provisions of Regulation 9deal with the publication of lists of notified bodies and the inspection of notified bodies. The Secretary of State will periodically carry out an inspection of Un notified bodies. The purpose of that inspection shall be to verify whether the notified body meets the notified body criteria and complies with any designation to which it is subject and complies with the Regulations. It is important to remember that although such an inspection may result in a visit to a manufacturer, it is the notified body that is being inspected, not the manufacturer.

Regulation 9(1)

1.4.23 The Secretary of State will publish a list which specifies for which instruments the Notified Body is designated and any conditions to which it is subject. These details will be available on the NMO website at http://www.bis.gov.uk/nmo/regulation.

- 1.4.24 The European Commission also publishes a list of notified body numbers which gives details of the notified body and the instruments on the New Approach Notified and Designated Organisations (NANDO) website. For the MID click on: http://ec.europa.eu/enterprise/newapproach/nando/.
- 1.4.25 Search by Annex for the relevant declaration of conformity and then by instrument type. Search by country and then by notified body number to give name and for MID the instruments for which it has been notified and the applicable procedures/annexes.
- 1.4.26 This site will enable you to find the European notified bodies as well as third country bodies designated under formal agreements Mutual Recognition Agreements (MRAs), Protocols to the Europe Agreements on Conformity Assessment and Acceptance of Industria Products (PECAs) and European Economic Area (EEA) responsible for carrying on the conformity assessment procedures referred to in the application.

Fees

Regulation 11

- 1.4.27 This Regulation permits notified bodies (which includes the Secretary of State) to charge such fees in connection with or incidental to the carrying out of conformity assessments or specific tasks as it may determine.
- 1.4.28 Section 56 of the Finance Act 1973 requires the Secretary of State to define by statute the fees he charges for certain tasks to be carried cut in relation to EU commitments/obligations.
- 1.4.29 The Regulations do not govern the tees that may be charged by other notified bodies other than identifying broad parameters which all notified body fees should be set. The Regulations do not govern other duties undertaken by local authorities relative to the Regulations i.e. in service inspection, subsequence-qualification and market surveillance.

Regulation 11(4)

1.4.30 Provides that, in the sees where fees (charged after work is completed or payment of fees has been requested in writing) have not been paid within a period of 28 days the notified body may give 14 days. Once in writing that the certificates or notification appropriate to the conformity assessment will be suspended until the fees have been paid.

Marking and identification requirements

Regionation 12

- 1.4.31 The annex to this guidance describes the CE marking, supplementary metrology (M) marking and the identification number of the notified body concerned with the conformity assessment which must be affixed to each instrument so as to be visible and legible. The M mark denotes that the instrument is regulated by one of the metrology directives.
- 1.4.32 It should be noted the supplementary markings are different from those in the NAWI Directive 90/384/EEC. For the purposes of the Directive the M marking does not have to be on a green background as it does under the NAWI Directive but it must be accompanied by the last two digits of the year in which it is affixed. See drawings in the annex to this guidance.

Conformity with other directives

Regulation 13

- 1.4.33 Where an automatic gravimetric filling instrument falls within the scope of other directives which provide for the affixing of the CE marking the CE marking affixed to the automatic discontinuous totalisers shall, in addition to conformity with the Measuring Instruments Directive, indicate conformity with those other directives. Other directives of which manufacturers should be aware include the following
- 89/336/EEC (amended by 91/263/EEC, 92/31/EEC, 2004/108/EC) on electro-magnetic compatibility, as implemented by Electromagnetic Compatibility (EMC) Regulations 2805 (as amended)
- 89/392/EEC (amended by 91/368/EEC, 93/44/EEC and 93/68/EEC) on machine safety (for some but not all industrial products), as implemented by the Su Machinery (Safety) Regulations 1992 (as amended); and
- 73/23/EEC (amended by 93/68/EEC) on low voltage, as implementably Electrical Equipment (Safety) Regulations 1994.
 This list is not exhaustive.
 1.5 PART III Use for trade
 Requirements for use for trade

- 1.5.1 This part only applies to automatic discontinuous totalisers in use for trade once they have been placed on the market and put into use on Great Britain (see paragraph 1.6.19 regarding Northern Ireland). It applies irrespective of whether the instruments was attested under the Regulations or the corresponding regulations issued by another Member State.
- 1.5.2 This part of the Regulation is made under section 15 of the Weights and Measures Act 1985. This part of the Regulations prescribes the requirements for use for trade of the instrument and for the avoidance of to be prescribes the instrument for the purposes of section 11(1) of the Act once put into use. We enforcement provisions in Part IV of the Regulations make reference to Regulation 14 in Part III by providing the inspector or approved verifier the criteria under which a disqualification of the equalification sticker may be applied to an instrument. Only the inspector of weights and masures can apply a disqualification mark to a measure. The activities of an approved vertier are controlled by an approval issued by the Secretary of State under section 11A of the Weights and Measures Act 1985. Approved verifiers must apply to the Secretary of State to have any automatic discontinuous totalisers covered by the Regulations that they probase to re-qualify added to the appendix which accompanies their approval. The Weights and Measures Act 1985, as amended, can be found at: http://www.legislation.gov.uk/.

Regulation 14

1.5.3 This Regulation requires instruments to continue to meet the essential requirements inservice. There are separate in-service values for maximum permissible errors (MPEs).

Manner of use

Regulation 15

- 1.5.4 Where an automatic discontinuous totaliser is marked with a temperature range it shall not be used for trade in temperatures outside that range.
- 1.5.5 Schedule 1 paragraph 16 requires the manufacturer to specify the accuracy class for the automatic discontinuous totalisers. The reference value for accuracy class must be stated on the certificate of approval for the instrument and shall be equal to the best accuracy class for the highest level of precision for which the instrument may be tested and passed as fit for use for trade. The instrument may not be used for measurements outside the stated limits.

1.5.6 The Regulations specify requirements that apply only when the discontinuous totaliser is in use for trade.

Manner of erection and installation

Regulation 16(1)

- 1.5.7 Every automatic discontinuous totaliser shall be positioned to facilitie cleaning and testing. If any special equipment that may be needed to permit the control of reasouring tasks after the instrument has been placed on the market is not a permanent fixture of the instrument, it shall be kept in the vicinity of the instrument.
- 1.5.8 The equipment must be installed in such a way that it's possible to be tested in service and can be cleaned if this can affect the metrological characteristics.

Regulation 16(2)

1.5.9 Special equipment is often covers items such as custom-made cradles for holding test weights for testing the load receptor. This must be kept with the weighing instrument or made available at short notice.

Regulation 16(3)

1.5.10 If the instrument does not have an <u>automatic</u> zero setting device, then the operator must be able to see the display to have easy access to the zero setting device in order to monitor and adjust if necessary.

1.6 PART IX CEnforcement

Enforcement authority

Regulation 17

- 1.6. All enforcement of these regulations will be under the European Communities Act. The powers of the Weights and Measures Act (in Northern Ireland the Weights and Measures (NI) Order 1981 do not extend to enforcement for these Regulations.
- 1.6.2 This regulation imposes a duty on every local weight and measures authority in Great Britain to enforce the Regulations within its area. (In Northern Ireland the enforcement authority is the Department of Enterprise, Trade and Investment). It also authorises the Secretary of State to enforce Part II of the Regulations and for that purpose gives him the power to appoint any persons to act on his behalf. The power of the Secretary of State is independent of a weights and measures authority and is to ensure the Secretary of State is able to fulfil his obligations to

conduct market surveillance. Those authorised by the regulation are referred to as "enforcement authorities".

Compliance notice procedures

Regulation 18

1.6.3 In cases where the enforcement authority has established that the CE marking and M mark have been inappropriately affixed for an instrument that has been placed on the market or put into use it may serve a notice on the manufacturer or his authorised representative requiring him to end the infringement. It must be noted that this power rests with an enforcement authority, not with an officer of that authority. It therefore does not limit the issuing of these notices inspectors.

1.6.4 It should also be remembered that the application of the CE and the M marking confirm compliance with the essential requirements in Schedule 1 of the Regulations when the instrument was placed on the market or put into use. This will include selecting and following one of the conformity assessment routes. Any contravention that falls outside if these definitions is not caught by the compliance notice procedure.

Immediate enforcement action

Regulation 19

- 1.6.5 An enforcement authority has powers to take it mediate action pursuant to this Regulation where it has reasonable grounds for considering that either:
- where it has reasonable grounds for considering that either:
 (a) the requirements of a compliance notice precedure have not been complied with; or (b) an automatic discontinuous totaliser which has been placed on the market or put into use, does not bear one or more of the CE marking, the charking and the identification number of the notified body which carried out the conformity of essment procedure in respect of that instrument; or (c) an automatic discontinuous totaliser bearing the CE marking and the M marking does not meet all the essential requirements when placed on the market, or properly installed and put into use in accordance with the manufacturer's instructions.
- 1.6.6 The Secretary of Stars will publish particulars of any notice issued withdrawing a certificate or notification. It is expected that this will take the form of advice to trading standards officers/interested parties and be published on the NMO website (www.bis.gov.uk/nmo).

Disqualification

Regulation

- 1. Cases where an instrument has been altered and the inspector has been notified in writing of the alterations a disqualification sticker will be required in all cases where the instrument no longer meets the essential requirements.
- 1.6.8 It should be noted that the maximum permissible errors for instruments (MPEs) in use for trade are those in the Table in Regulation 14 (i.e. in-service errors) and not those in the Table in paragraph 17 in Schedule 1 (relating to first placing on the market).

Re-qualification

Regulation 22

- 1.6.9 It is important to contrast this process with that initially placing a measure on the market for the first time which requires the involvement of a notified body. Re-qualification may be by an inspector of weights and measures or by an approved verifier, e.g. the manufacturer or a repairer.
- 1.6.10 Re-qualification is the process by which either an inspector or an approved verifier assesses compliance of the instrument after it has, or could have, been disqualified and returned to conformity with the essential requirements. This means that the MPEs will be those applicable to first placing the instrument on the market.

Testing of automatic discontinuous totalisers

Regulation 23

- 1.6.11 The Regulations do not stipulate a test procedure for conformity assessment or verification. It only stipulates that an instrument must comply with the essential requirements. The use of a harmonised standard or normative document will demonstrate compliance with the essential requirements. The reference for normative documents covering automatic discontinuous totalisers is given in the section describing regulation 5(2) above.
- 1.6.12 The Measuring Instruments (Automatic Discontinuous Totalisers) Regulations 2006 do not stipulate a verification procedure. They only stipulate that an instrument must comply with the essential requirements. The use of a harmonised standard or normative document will demonstrate compliance with the essential requirements.
- 1.6.13 Where third party testing is carried out to accordance with Module F/F1 the testing requirement is specified in the harmonised standard or normative document or equivalent tests. In the absence of these documents the Northed Body is responsible for specifying the appropriate tests to be used for the purposes of Sections 6.1 and 7.2 of Annex F1 to the Directive.
- 1.6.14 The reference value for curacy class shall be stated in the certificate of approval and shall be equal to the best accuracy class, that is to say the class of the highest level of precision, for which that instrument may be tested and passed as fit for use for trade.
- 1.6.15 The reference value is the best accuracy class that has been established for the instrument at the time of type approval or design approval. An instrument can be declared as meeting the resolution ments even if subsequent testing with "material" indicates a better accuracy class.
- 1.6.16 This regulation, being part of Part IV (Enforcement), relates only to the testing carried out by the respector in relation to his duties as an enforcement officer when he makes an in-service inspection of the measuring system. It does not apply to testing for conformity assessment or verification.

Regulation 23(1)

1.6.17 Requires the person in control of the equipment to provide such assistance as necessary to enable the inspector to carry out his duties. In most cases, this normally means allowing access to the equipment and co-operation of site staff so that inspection of the equipment can take place. However, the regulation gives the inspector the power to require reasonable assistance in a number of specific and non-specific ways. This helps to ensure the inspector cannot be prevented from carrying out his duties without very good reason.

Unauthorised application of authorised marks

Regulation 24

1.6.18 Any automatic discontinuous totaliser in use for trade but not marked with the notified body number, CE mark and M mark and put in use on or after 30 October 2006 may be disqualified unless it can be demonstrated that the instrument is not subject to the Regulations.

Powers of entry and inspection

Regulation 25(1)

- 1.6.19 It is important to consider the definition of Enforcement Officer. It is either a inspector as defined in the Weights and Measures Act 1985 (in Northern Ireland the Weights and Measures (NI) Order 1981), or a person appointed by the Secretary of State to act on the behalf to enforce Part II of the Regulations.
- 1.6.20 It should be noted that this Regulation gives an enforcement of cer the authority to inspect and test an automatic discontinuous totaliser, but it is only a inspector of weights and measures that may reject the instrument if it is found not to comply with the regulations. The enforcement authority does have the power to issue a compliance notice (regulation18) or take immediate enforcement action (regulation 19) if the requirements of those regulations are not met.
- 1.6.21 The powers under regulation 25(1) should be contrasted with those existing in relation to the NAWI Regulations 2000, SI 2000/3236 ("the NAWI Regulations"). These give an authorised officer an extra power to inspect relevant quality systems. A similar power has not been included in these regulations. This means that an inforcement officer will not have the power to look at the quality systems that a manufacturer approved verifier may be using when engaging in conformity assessment procedures of their own instruments. Where this becomes a necessity such action may be authorised as part of a market surveillance exercise.
- 1.6.22 It should be noted that there is no provision in these regulations which allows a person to refuse to give information may incriminate them. This should be contrasted with the NAWI Regulations which do would need to provision.

Penalties for affences

Regulation 2

1.6.23 the enforcement provisions for these Regulations have been made under the European Componities Act the maximum penalty is a fine not exceeding level 5 on the standard scale levied on summary conviction. The scale has 5 levels, each corresponding to a certain amount. This means that the level of fines can be updated by changing the value of each level, without the need to amend the legislation relating to each separate offence. The current values of the standard scale are section 37 of the Criminal Justice Act 1982 provides as follows:

Level on the scale	Amount of fine
1	£200
2	£500
3	£1,000
4	£2,500
5	£5,000

1.6.24 This penalty avoids the threat of imprisonment previously applicable to offences made under the Weights and Measures Act 1985.

1.7 PART V - Miscellaneous and supplemental

Adaptation for Northern Ireland

Regulation 32

1.7.1 The Regulations apply to Northern Ireland subject to Schedule 5. This means that these Regulations apply the requirements relating to placing on the market to the whole of the UK. However the in-service provisions relate to Great Britain only. Northern Ireland does not currently have in-service provisions for automatic discontinuous totalising instruments.

The Electromagnetic Compatibility Regulations 2005

1.7.2 The Electromagnetic Compatibility Directive was implemented in the UK by the Electromagnetic Compatibility Regulations 2005 (S.I. 2005 No 28 No

Annex

MARKING AND INSCRIPTIONS

Regulation 12(3)

Supply of Stickers

The Secretary of State has decided that it is necessary to provide a long-term, professional solution to resolve the difficulties that have arisen in securing a consistent good quality source for the supply of the metrology stickers that local authorities and others require to fulfil their statutory obligations for both initial verification, disculalification and subsequent re-qualification activities.

A new solution has been identified which will enable NMO to produce printed versions of the stickers described below on demand. The system has the capability to incorporate the specific identification data required in thermal printed form. This solution will replace the current stop-gap solution introduced in 2006 to allow for the changes to the marking requirements in the MID which meant that, when re-qualifying an instrument, an inspector has to apply both his number and the year of re-qualification in manuscript on a modified NAWI sticker using a "permanent" marker. It has become clear that these marks were not sufficiently permanent so as to withstand the harsh cleaning requirements in some conditions of use particular in the food preparation sector.

The new stickers have been tested and pertoned well in a harsh cleaning environment and have been found to meet the requirements applicable in the food industry.

It is the opinion of the Secretary of State that the following stickers should be required to be used for the statutory marks. The new stickers are 12.7 mm x 11.1 mm.

It is not envisaged that the Weights and Measures (Prescribed Stamp) Regulations 1968 (SI. 1968/1615) will need to be amended as re-qualification is carried out under the provisions of these regulations.

The Green M metoogy mark, and the CE mark for initial verification which are the responsibility of the instrument manufacturer will not be supplied centrally.

The new stokers will also be relevant to local authorities who are notified bodies and to approved verifiers under the regulations. Commercial organisations which need to obtain supplies are invited to contact stickers@nmo.gov.uk to discuss availability and prices.

The Secretary of State has determined that there will be benefits arising from a change of process with the stickers produced centrally and supplied by NMO directly to local authorities. To that end the decision has been made to supply a limited quantity of stickers free of charge to all inspectors. The stickers used for re-qualification of NAWI and MID instruments will be supplied overprinted with the inspector's number and on an annual basis with the year also overprinted. Stickers can also be overprinted with the relevant Notified Body/Approved Verifier numbers on request

If you have a requirement for a larger quantity, or you are not a local authority, please contact stickers@nmo.gov.uk. It will be possible to agree terms under which larger numbers/other stickers can be provided (at a cost).

STICKER 1 – RE-QUALIFICATION

Inspector or

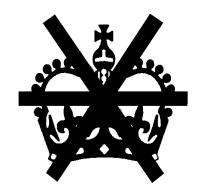
Son's January 2021 INS/0704/08

This is all white label printed on which with the scribed crown and the information for Inspector's number will be overprinted using thermal printing technology for use for NAWI and MID instruments.

This publication AV/070 This publication see

This is all white label printed on which with the prescribed crown and the information for Approved Verifier number will be overprinted using thermal printing technology.

STICKER 2 – DISQUALIFICATION



This is a plain white label bearing the prescribed crown mark which has been printed with the disqualification mark. No overprinting is required.

STICKER 3 - NOTIFED BODY IDENTIFICATION NUMBER FOR INITIAL VERIFICATION

NB 0126

This is a plain white which the Notified Body number has been overprinted using a thermal printer. It is not a requirement for the number to be pre-fixed by NB.

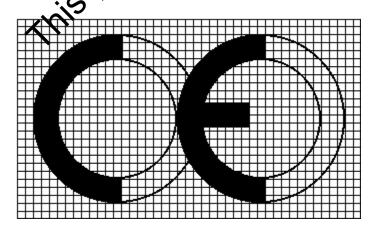
Other marks and requirements for MID instruments

1. The CE marking consists of the symbol "CE" according to the design laid down in paragraph I.B(d) of the Annex to Decision 93/465/EEC. The CE marking shall be at least 5 mm high.

- **2.** The M marking consists of the capital letter "M" and the last two digits of the year of its affixing, surrounded by a rectangle. The height of the rectangle shall be equal to the height of the CE marking. The M marking shall immediately follow the CE marking.
- **3.** The identification number of the notified body concerned shall follow the CE marking and the M Marking.
- **4.** The CE marking and the M marking shall be indelible. The identification number of the notified body concerned shall be indelible or self destructive upon removal. All markings shall be clearly visible or easily accessible.

Directive 2004/22/EC does not itself contain diagrams for any of these marks although **the CE mark** is prescribed by reference to paragraph 1.B(d) of the Annex to Decision 93/465/EEC.

"The CE mark not be less than 5mm in its vertical height, and the proportions maintained wis generally shown on a grid in the guidance booklets, as below (the grid does not form part of the marking and is for information only):



This mark looks the same as some previous marks, but there are subtle changes, and it should be studied closely. It should be noted, for example, that the C and E are not formed by perfect semi-circles, i.e. the top and bottom arms extend one square beyond the semi-circles, and the middle arm of the E stops one square short.

The graphic is not made available for download from any official sources, but can be obtained in a wide variety of file formats from commercial organisations, sometimes freely available for download.

As far as **the M mark** is concerned the manufacturer applying the mark has freedom over the design provided that the M marking meets the criteria set down in Paragraph 2 of Schedule 4 of Directive 2004/22/EC, as to being surrounded by a rectangle also containing the last two digits of the year of affixing, and is placed immediately after the CE mark.

Similarly **the Notified Body** must place its mark, or authorise the macufacturer to do so on its behalf, so that it follows the CE and M markings.

The identification number of the notified body concerned shall follow the CE marking and M marking.

When a discontinuous totaliser consists of a set of devices operating together, the markings shall be affixed on the instrument's main device.

The CE marking and the M marking must be indelible. The identification number of the notified body concerned must be indelible self-destructive upon removal. All markings shall be clearly visible or easily accessible.

The Directive does not specify incletail the form and appearance of all the various markings. It has therefore been becessary to decide on the details that will apply under the Regulations as indicated the examples statutory marks above.

Part 2: The Weighing Equipment (Filling and Discontinuous Totalising Automatic Weighing Machines) Regulations 1986 (S.I. 1986/1320) [Pages 25 to 34]

Contents

Background to the Regulations
Status and purpose
Scope of the Regulations
Materials, principles of construction and marking
Manner of erection and use for trade
Equipment needed for testing
General comments on testing
Testing
Stamping
Presentation of descriptive markings
Status and purpose Scope of the Regulations Materials, principles of construction and marking Manner of erection and use for trade Equipment needed for testing General comments on testing Testing Stamping Presentation of descriptive markings Acceptance of test results
1 Checklist for passion as fit for trade use
2 Exemptions of reference to date) from the requirements of the Regulations

Part 2: The Weighing Equipment (Filling and Discontinuous Totalising Automatic Weighing Machines) Regulations 1986 (S.I. 1986/1320)

2.1 BACKGROUND TO THE REGULATIONS

- 2.1.1 These Regulations are aimed at formalising the requirements and test procedures specifically for discontinuous totalisers (and filling machines) in use for trade. They identify such machines as classes of equipment within the general group referred to as automatic weighing machines.
- 2.1.2 Since pattern examination has been a requirement under UK weights and measures legislation a fair number of approvals have been granted for automatic weighing machines. Inspectors of weights and measures were advised as early as 1906 of the need to verify discontinuous totalisers "during the successive weighings of not less than totalisers back". It was further recommended that the test loads should be reweighed over another weighing instrument.
- 2.1.3 Discontinuous totalisers were previously prescribed by the Weights and Measures Regulations 1963, SI 1963/1710, where they were deemed to comple with the description of an automatic weighing machine in Regulation 140(1). Their regulations therefore a prerequisite of the Automatic Weighing Machines Regulations 1986. [Regulation 3(3)].
- 2.1.4 Regulations mentioned in this document have been made by the Department, under the powers conferred by the Weights and Measures (1985 c.72). The Weights and Measures Act 1985, as amended, can be found at the p://www.legislation.gov.uk/.

2.2 STATUS AND PURPOSE

- 2.2.1 This guidance has been prepared for all those who are concerned with observing or applying the new controls. This includes equipment manufacturers, inspectors of weights and measures, users and owners of those discontinuous totalisers which are in use for trade, as defined in section 7 of the Weight and Measures Act 1985.
- 2.2.2 There follow comments on the Regulations, part by part as appropriate, to advise on interpretation. As a further aid:

Annex 1 is a checklish of requirements for passing as fit for trade use, in Regulation number order;

<u>Annex 2</u> is a solulation of those automatic weighing machines which qualify for exemption from certain regulations of the Regulations by reference to date of testing.

2. SCOPE OF THE REGULATIONS

- 2.3.1 The Regulations apply to automatic weighing machines of the filling and discontinuous totalising types which are used for trade. [Regulation 3(1)].
- 2.3.2 Excluded from the Regulations are any automatic weighing machines for use only for making up packages under the "average system" in accordance with section 49(1)(b) of the Weights and Measures Act 1985. [Regulation 3(2)].

2.4 MATERIALS, PRINCIPLES OF CONSTRUCTION AND MARKING

(Parts II, III and IV of the Regulations)

- 2.4.1 These Parts of the Regulations reiterate many established principles applicable to all groups of weighing equipment. The following are relevant to automatic weighing machines.
- 2.4.2 The requirement that any zero setting device shall have a total range not exceeding 4% of maximum capacity, to compensate for wear and tear of ordinary use for trade, is not confined to purely mechanical equipment; it is also intended to include compensation for the drift in any electronic equipment. [Regulation 8].
- 2.4.3 There is no requirement for discontinuous totalisers to be provided with a means of giving a visual indication of the value of the measurement made of individual quantities of material. However, should such an indication be present on a machine it must be provided with the means of being tested for linearity and, as far as practicable, otherwise tested as a nonautomatic weighing machine of the same capacity. [Regulation 9].
- 2.4.4 Discontinuous totalisers provided with the visual indication of the weight of individual quantities of material, as at 2.4.4 above, may have additional features included which enable the alternative method of performing material testing, paragraph 3 of School 2, to be carried Jani out. [Regulation 24].

2.5 MANNER OF ERECTION AND USE FOR TRADE (Parts III and IV of the Regulations)

- 2.5.1 These Parts of the Regulations are intended to extree that the equipment is properly installed with facilities to enable ease of testing on silver it is noteworthy that breach of the requirements in Regulations 19-21 and 26-30 could constitute a prosecutable offence under section 15(3) of the Weights and Measure Act 455, rather than lead to obliteration of the stamp.
- 2.5.2 Discontinuous totalisers may have be same facility as in 2.5.2 above, in addition to the provision of a printout of totalised weight values where the scale interval is the same as the totalisation scale interval quoted on the equipment. [Regulation 29].
- 2.5.3 An important aspect of every installation is the provision of facilities for the depositing on and removal from the load recotor, of the test loads of material. This is particularly so in the case of discontinuous totalisers where the test load is required to be checkweighed before or after being weighed by the equipment under test. Ideally the test material should be deposited into the system as near as possible to the load receptor and collected immediately after discharge to minimise losses. [Regulation 26(1)].
- 2.5.4 Where the otalised weight display value is to be checked by weighing the material test load on a salarate non-automatic weighing machine, it is important that such a machine is capable of determining the weight of the test load to an accuracy equal to or better than onefifth of the error allowance for that load.
- If "M" is the total value of the material test load, whether equal to the minimum totalised load or larger, in accordance with Table 2 in Schedule 3, the limits of error on passing as fit for use for trade will be $\pm 0.5\%$ M.

Therefore the accuracy required of the checkweighing machine, in accordance with paragraph 5 of Schedule 2 will be:

2.5.4.1 However as the weighing of material, even if accomplished in one operation, would involve tare and gross weighings on the same checkweighing machine the additional term 1/ $\sqrt{2}$ should he introduced into the above expression. This will require that the accuracy of the machine on which the checkweighing is accomplished in one operation shall be:-

$$\pm \frac{0.5\% \text{ M}}{5} \times \frac{1}{\sqrt{2}} = \pm \frac{\text{M}}{1000 \sqrt{2}}$$

2.5.4.2 There is no requirement that the material test load must be checkweighed in one operation; in many cases this will not be practicable, and indeed paragraph 5 of Schedule 2 acknowledges this. Any division of the material, test load into convenient weighments will necessitate a still further increase in the accuracy of the checkweighing machine. If "N" is the number of divisions of the test load then the expression for the required accuracy will be:-

$$\pm \frac{0.5\% \text{ M}}{5} \times \frac{1}{\sqrt{2}} \times \frac{1}{\sqrt{N}} = \pm \frac{\text{M}}{1000 \sqrt{2N}}$$

Note: This may be adjusted for obliteration of the stamp, which require accuracy (factor 2). (Regulation 26(2)].

- 2.5.5 An additional requirement for the checkweighing machine that it should be "sited in the vicinity of the total lear" The the vicinity of ... the totaliser." The interpretation of "vicinity" at every instance must rest with the local inspector of weights and measures who should take into consideration:
- the distance between the discontinuous totaliser and the weighing machine: (i)
- (ii)
- accessibility, eg condition of the connecting read; the means by which the material test load is to be conveyed; and
- (iv) the extent of the assistance available.

[Regulation 26(2)].

2.5.6 To ensure that a discontinuous vialiser system can be set to zero or a datum (given point) indication, access to interior of the load receptor to facilitate cleaning is required. This access should so permit easy and safe inspection. [Regulation 28(2)].

EQUIPMENT NEEDED FOR TESTING

- 2.6.1 When an installation is submitted for testing and stamping, the owner or user of the equipment would normally need to arrange for:
- (i) the availability of material for the test loads, [Regulations 22(3) and 31(3)1;
- (ii) access to and use of a non-automatic weighing machine, see paragraphs 2.5.5 and 2.5.6
- (iii) transportation facilities for the movement of the material between the equipment and the ing machine.
- 2.6.2 In the case of equipment provided with a means of giving a visual indication and/or printout of the value of the measurement made of individual weighments, the inspector will need, in addition to stationery and protective clothing, to provide:
- (i) the weights or masses to load the equipment to its maximum capacity:
- (ii) sufficient change point weights, each equivalent to one-tenth of the scale interval, to cover at least one scale interval, if the machine is not provided with the facilities described in Regulation 24.

2.7 **GENERAL COMMENTS ON TESTING**

- 2.7.1 Most discontinuous totalisers may be considered to be an integral and permanent part of a processing system; therefore, the requirement that the testing and stamping is only to be done on site forbids the transfer of the weighing units of such equipment to any other machines and also ensures that mobile machines remain dedicated to a particular purpose. This requirement usually makes it practicable for systems to be tested by using the same type of material which they would normally process when in use for trade. [Regulation 31(1)].
- 2.7.2 Discontinuous totalisers are often installed in hostile environments where the materials being processed could be at least partially responsible for the detrimental conditions. Unless given periodic attention, deposits of material may settle on or penetrate parts which can affect the metrological integrity of such equipment. [Regulation 31(2)].
- 2.7.3 The responsibility for supplying material for the test loads rests with either the person in control of equipment which is in use for trade, or the person submitting such equipment for testing, as appropriate. In the case of discontinuous totalisers, that person should be aware of the quantity of material specified for the minimum totalised load, as maked on the machine or descriptive plate (Regulation 25), and the requirements of Parts I and III of Schedule 2. It would be advisable for these requirements to be discussed in advance to determine the total number of tests to be made and whether it is practicable and advantageous to attempt to recycle the same material for each individual test, [Regulation 31(3)].
- 2.7.4 The test requirements are so arranged that the discontinuous totalisers, the test procedure is described in Schedule 2 [Regulation 32(1)], while the test results must be within the limits of error set out in Table 2 of Schedule 3. [Regulations 33(2) and 34(b)].

2.8 TESTING

- 2.8.1 The test requirements, dependent the construction of the equipment, can be divided into:
- (i) non-material testing, for automore weighing equipment provided with a means of giving a visual indication of the value of individual weighments [Regulation 9], and
- (ii) material testing of all amomatic equipment, using a separate non-automatic weighing machine to checkweigh the lest loads, or
- (iii) the optional alter law testing of discontinuous totalisers, using an internal non-automatic weighing faculty if the machine is constructed in accordance with Regulation 24.
- 2.8.2 Where not naterial testing is applicable, a statement to that effect will be appended to the certificate of approval or notice of examination in respect of the pattern and details given under the heading of Recommended Tests. [Regulations 23(2) and 32(2)].
- 2.8.2 There is no prescribed order of testing but if non-material testing is required then it is probably quicker and requires less manpower to complete it first. Also if the initial results are not satisfactory, then if desired, the material testing can be postponed to enable any servicing and final adjustment to be made.
- 2.8.3 For the material testing of a discontinuous totaliser the basic requirement is that separate quantities of material, each at least equal to the minimum totalised load, shall be processed by' the machine either before or after the material is checkweighed by the separate weighing machine. Whichever method is used, the primary consideration must be to ensure that the entire load can be collected or deposited and transported with no test material being lost or extraneous material being picked up during the exercise. [Regulations 26(1) and 27(a)].

- 2.8.3.1 It is not always reasonable to expect that the load be discharged directly into waiting vehicles or deposited directly into the feed system of the machine. In either situation if the material is transferred via the ground then it will be necessary to ensure that:
- (i) the ground is reasonably flat and hard to enable the use of mechanical handling equipment;
- (ii) any immobile obstructions are partitioned or covered to avoid loss of material in inaccessible areas;
- (iii) there is sufficient space to shoot the load with no possibility of any being lost, eg above a quayside;
- (iv) a broom and shovel are supplied; and
- (v) if a load is to be moved by suspended container, eg mechanical grab, then it possible, traversing over open water or any area from which accidental discharges cannot be recovered should be avoided.
- 2.8.3.2 It should be noted that the minimum of two individual tests is applicable where the machine is designed to feed the load receptor with approximately the same amount of material successively. [Schedule 2 paragraph 6(2)].
- 2.8.3.3 Where the machine feed can be adjusted to vary the quality of material in the load receptor, depending on the density, at least two individual tests should be made with, as nearly as possible, the minimum totalised load; an additional individual test should be made, consisting of 20 separate loads each as nearly as practicable equal to the maximum capacity of the load receptor. [Schedule 2 paragraph 6(4)].
- 2.8.4 During the checkweighing procedure some attention to the operational arrangements will be required to ensure the original of the results; many situations will involve movement of the material in sub-divord lorry loads, hence tare weighing must be completed prior to gross weighing in case of residual material in the lorries. To avoid lack of continuity due to prolonged periods between weighing or a change of driver, the weighing procedure should be consistent throughout the tests by ensuring that all tare and gross weighings do not include the oriver. Furthermore, the primary display of the weighing machine must be seen and not just a printout of a weight which might, in the movement of the vehicles between the equipment and the weighing machine to ensure that none of the material load is lost in transit. Any losses would nullify the result of that particular individual test. [Schedule 2 paragraph 6(5)(a)].
- 2.8.5 Following through the material test procedure for discontinuous totalisers, where separate checkwhining machines are used, the salient points are:
- (i) assurance of an adequate checkweighing facility;
- (ii) zero setting of the weighing system and the totalisation indicating device;
- (iii) at least two individual tests with approximately the same quantity of material;
- (ix when not weighed prior to the test runs, checkweigh the material load as soon as possible after discharge;
- (v) an additional individual test, if appropriate; and
- (vi) use results to calculate both "material testing error" and "repeatability error".

[Schedule 2 paragraphs 5 and 6].

2.8.6 The optional alternative method of material testing which does not involve the separation, handling and checkweighing of the test material is only applicable to discontinuous totalisers which are provided with the facilities described in Regulations 9 and 24. The integrity of this alternative method depends on the care with which the static testing of the weighing system is carried out, as detailed in Part III of Schedule 2.

- 2.8.6.1 Where the discontinuous totaliser is designed to feed the load receptor with a nominally constant quantity of material at least two tests, each consisting of a group of 20 separate discharges, shall be made to enable repeatability to be assessed.
- 2.8.6.2 Where it is possible to vary the quantity of material fed to the load receptor, the tests for repeatability should be made with the machine set such that the total weight of a group of 20 separate discharges is as nearly as possible equal to the stated minimum totalised load. A further test, consisting of a group of 20 separate discharges, should be made with the machine set to feed the load receptor with the maximum quantity of material on each occasion.
- 2.8.7 For the assessment of repeatability error, the difference between each of the polividual test values and their average value shall not exceed the prescribed but of error. [Schedule 3 Table 2].

2.9 STAMPING

- 2.9.1 Many recently approved patterns are described as having an EEC type stamping plate which means a stamping plate that:
- (i) conforms with one of the two patterns shown on the drawing attached to 10.15.2.2.1 of EEC Council Directive 73/360/EEC as amended relating to non-automatic weighing machines:
- (ii) is constructed as described in the second, third and fourth paragraphs of 10.15.2.2.1 of the Directive; and
- (iii) is affixed as described in 10.15.2.2.2 of the prective, but having a date stamp applied to the lead caps on the fixing screws.

2.10 PRESENTATION OF DESCRIPTIVE MARKINGS

- 2.10.1 The descriptive markings soust:
- (i) be indelible and of a size, form and clarity which allows for easy reading under normal conditions of use of the mechine;
- (ii) be grouped togette in an easily visible location on the machine itself or on a plate attached to the machine.
- 2.10.2 If the manyings are on a plate, it must be possible to seal the plate unless it cannot be removed within being destroyed, as described in 10.14.3 of EEC Council Directive 73/360/EEC as amended, but having a date stamp in place of the EEC partial verification mark, where appropriate.

2 A CCEPTANCE OF TEST RESULTS

2.11.1 For the purposes of pattern approval required by Regulation 10, tests performed in other Member States of the European Community by bodies recognised in those States need not be repeated in the United Kingdom, if such tests are equivalent to *those* performed on weighing equipment in the United Kingdom and if the results of such tests are, or may at their request be made available to the UK Authorities.

ANNEX 1

CHECKLIST FOR PASSING AS FIT FOR USE FOR TRADE AND RELATED REQUIREMENTS (in Regulation order)

APPLICATION The Regulations do not apply to machines for making up packages to the "average weight" system	Regulation 3(2)
MATERIAL, PRINCIPLES OF CONSTRUCTION AND MARKING The removal of removable parts does not affect accuracy The interchange or reversal of parts does not. affect accuracy The constituent parts will withstand wear and tear Limit of adjustment of any zero setting device Provision of facilities for testing as a non-automatic machine The machine is made in accordance with a pattern as approved under section 12 of the Weights and Measures Act 1985 The automatic weighing machine is appropriately marked The units of measurement are correctly marked Provision of a stamping plug and sealing arrangements DISCONTINUOUS TOTALISERS – PRINCIPLES OF CONSTRUCTION AND MARKING Provision of optional facilities for testing	6(1) 6(2) 7 10 11 12 13
Additional markings appropriate to discontinuous total sers	24 25
DISCONTINUOUS TOTALISERS - MANNER OF RECTION AND USE FOR TRADE The discontinuous totaliser can be tested in Shu A suitable checkweighing machine is in the vicinity Spillage from the load receptor not likely to occur Overload of the weighing unit not likely to occur Zero-setting control and indication are suitably positioned Access to facilitate cleaning is provided Provision and use of a weight printing device Prohibition of use in temperatures outside any marked range	26(1) 26(2) 27(a) 27(b) 28(1) 28(2) 29
DISCONTINUOUS TO TALISERS - TESTING The machine is to a clean condition Provision of sufficient suitable material for testing Whether additional or alternative tests are required	31(1) 31(2) 31(3) 32(2)
SIPPLEMENTARY PROVISIONS The test results satisfy all requirements No automatic weighing machine bears any mark or stamp which might be mistaken for the prescribed stamp	34(b) 35(2)

ANNEX 2 EXEMPTIONS (BY REFERENCE TO DATE) FROM THE REQUIREMENTS OF THE REGULATIONS

Conditions	Regulation exempted	
All automatic weighing machines first passed as fit for use for trade before 1 December 1980	12(1)(a)	Partial restriction of mark of units of measurement [see 12(1)(b)]
Discontinuous totalisers first passed as fit for use for trade before 1 September 1986	11 and 25	The marking and iled are not obligatory
Discontinuous totalisers first passed as fit for use for trade before 1 January 1988	26(2)	The weighing machine requirement is obligatory [see 26(4)]
Discontinuous totalisers first passed as fit for use for trade before 1 January 1988	28(2) 28(2) 28(1)	The erection requirements checking and adjusting zero setting devices are less restrictive The provision of facilities for cleaning the load receptor interior is not obligatory [see 28(3)]
Discontinuous totalisers first passed as fit for use for trade before 1 January 1988	28(2) 28(2) 28(2)	On material testing, sub-paragraphs 6(6) and 9(8) of Schedule 2 may not be applicable [see sub-paragraphs 6(7) and 9(9) of Schedule 2]



aication was withdrawn on I January 2021.

National Measurement Office Stanton Availae Teddington Middle ex TW1 0JZ

Tel: +44 (0)20 8943 7272 Fax: +44(0)20 8943 7270

Crown Copyright 2012

